

NATURAL RESOURCES COMMISSION  
THOMAS J. ANDERSON  
MARLENE J. FLUHARTY  
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DAVID D. OLSON  
RAYMOND POUPORE

STATE OF MICHIGAN



JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING  
BOX 30028  
LANSING, MI 48909

David F. Hales, Director

October 7, 1988

CERTIFIED MAIL

Pennwalt Corporation  
4655 Biddle Avenue  
Wyandotte, Michigan 48912

Gentlemen:

SUBJECT: NPDES Permit No. MI0002381

Your National Pollutant Discharge Elimination System (NPDES) Permit has been processed in accordance with appropriate state and federal regulations.

It contains the requirements necessary for you to comply with state and federal water pollution control laws.

REVIEW THE PERMIT EFFLUENT LIMITS AND PERFORMANCE SCHEDULES CAREFULLY. These are subject to the criminal and civil enforcement provisions of both state and federal law. Permit violations are audited by the United States Environmental Protection Agency and may appear in a published quarterly noncompliance report made available to agencies and the public.

Your monitoring and reporting responsibilities must be complied with in accordance with this permit. If applicable, monthly operating report forms will be transmitted to you in the near future. These reports are to be submitted monthly or otherwise as required by your NPDES permit.

Any reports, notifications, and questions regarding the attached permit or NPDES program should be sent to the following address:

Roy Schrameck, District Supervisor  
Detroit Area District Office  
505 West Main Street  
Northville, Michigan 48167  
Telephone: (313) 344-9460

US EPA RECORDS CENTER REGION 5



402888

Pennwalt Corporation  
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NOTE: All references within this permit made to the Water Quality Division or Chief of the Water Quality Division are to refer to the Surface Water Quality Division or Chief of the Surface Water Quality Division, respectively.

Sincerely,

*William E. McCracken*

William E. McCracken, P.E.  
Chief, Permits Section  
Surface Water Quality Division  
517-373-8088

Enclosure: Permit

cc: EPA-Region V (2) ;  
Files  
Mr. Steve Eldredge, Planning and Special Programs Section  
Mr. Roy Schrameck - Detroit District (2)  
Mr. Paul Blakeslee, Regional Supervisor, Region III  
Compliance and Enforcement, SWQD  
208 Agency - Southeast Michigan Council of Governments  
Data Entry, SWQD

MICHIGAN WATER RESOURCES COMMISSION  
AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq; the "Act"), and the Michigan Water Resources Commission Act, as amended, (Act 245, Public Acts of 1929, as amended, the "Michigan Act"),

Pennwalt Corporation

is authorized to discharge from a facility located at

4655 Biddle Avenue  
Wyandotte, Michigan 48112

designated as Pennwalt Corp

to the receiving water named the Detroit River Trenton Channel in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I and II hereof.

This permit takes effect immediately upon the date of issuance. Any person who feels aggrieved by this permit may file a sworn petition with the Commission, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Commission may reject any petition filed more than 60 days after issuance as being untimely. Upon granting of a contested case to the applicant, the Commission shall review the permit to determine which contested term shall be stayed until the Commission takes its final action. All other conditions of the permit remain in full effect. If the contested condition is a modification of a previous permit condition and the Commission determines the contested condition shall be stayed, then such previous condition remains in effect until the Commission takes final action. During the course of any administrative proceeding brought by a person other than the applicant, the conditions of this permit will remain in effect, unless the Commission determines otherwise.

This permit and the authorization to discharge shall expire at midnight October 1, 1992. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Michigan Water Resources Commission no later than 180 days prior to the date of expiration.

This permit is based on an application dated March 31, 1987, as amended, and referencing information submitted with prior applications, and shall supersede any and all Orders of Determination, Stipulation, Final Orders of Determination, or NPDES permits previously adopted by the Michigan Water Resources Commission.

Issued this 15th day of September, 1988, by the Michigan Water Resources Commission. superseding NPDES Permit No. MI0002381, expiring October 1, 1987.

  
Paul D. Zugger  
Executive Secretary

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

## 1. Interim Effluent Limitations

Beginning on the date of permit issuance and lasting until March 31, 1989, the permittee is authorized to discharge a maximum of fourteen million seven hundred twenty thousand (14,720,000) gallons per day of organic and inorganic process water, barometric condenser cooling water, boiler blowdown, noncontact cooling water, and an unspecified quantity of stormwater runoff from outfall 001 (formerly outfall 006) to the Detroit River Trenton Channel via Monguagon Creek. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	<u>Discharge Limitations</u> <u>lbs/day</u>		<u>Other Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow (MGD)					Daily	Report Total Daily Flow
Total Suspended Solids	1716	4536	14 mg/l	37 mg/l	3x Weekly	24-hr Comp
BOD <sub>5</sub>	1457	2773			3x Weekly	24-hr Comp
Total Zinc			105 ug/l	190 ug/l	2x Monthly	24-hr Comp
Total Residual Chlorine				0.036 mg/l	3x Weekly	Grab
Phenol				0.2 mg/l	Weekly	24-hr Comp
Ammonia as Nitrogen (mg/l)			Monitor		Weekly	24-hr Comp
Chlorides (mg/l)			Monitor		3x Weekly	24-hr Comp
Temperature (°F)			Monitor		3x Weekly	Reading
Outfall Observation					Daily	Visual
				<u>Minimum</u>		
Dissolved Oxygen				4.0 mg/l	3x Weekly	Grab

a. The receiving stream shall contain no unnatural turbidity, color, oil film, floating solids, foams, settleable solids, or deposits as a result of this discharge.

b. Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to the discharge to Monguagon Creek.

c. The pH shall not be less than 6.5 nor greater than 9.0, except as provided below. The pH shall be monitored as follows: continuous; report minimum and maximum; reading: daily. In addition, the permittee shall report each excursion from the allowable range of 6.5 to 9.0 on an individual occurrence and monthly cumulative basis. The total time during which the pH values are outside the pH values of 6.5 to 9.0 shall be no more than 7 hours and 26 minutes in any calendar month, and no single excursion shall exceed 60 minutes. The discharge shall be within the range of 6.0 to 10.5, 100% of the time.

## PART I

## Section A.

d. Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids or deposits) shall be reported immediately to the Detroit District Office of the Surface Water Quality Division followed with a written report within 5 days detailing the findings of the investigation and the steps taken to correct the condition.

e. In the event the permittee shall require the discharge of water treatment additives, the permittee shall notify the Chief of the Surface Water Quality Division. The permittee shall obtain written approval from the Chief of the Surface Water Quality Division to discharge such additives at a specified level. The permit may be modified in accordance with the requirements of Part II.B.4 if a constituent of the additive or additives requires limiting.

f. The term noncontact cooling water shall mean water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product, or finished product.

## PART I

## A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

## 2. Final Effluent Limitations

Beginning on March 31, 1989, and lasting until the expiration date of this permit, the permittee is authorized to discharge a maximum of fourteen million seven hundred twenty thousand (14,720,000) gallons per day of organic and inorganic process water, barometric condenser cooling water, boiler blowdown, noncontact cooling water, and an unspecified quantity of stormwater runoff from outfall 001 (formerly outfall 006) to the Detroit River Trenton Channel via Monguagon Creek. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	lbs/day		Other Limitations		Measurement Frequency	Sample Type
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
Flow (MGD)					Daily	Report Total Daily Flow
Total Suspended Solids	1568	4525			3x Weekly	24-hr Comp
BOD <sub>5</sub>	1039	2773			3x Weekly	24-hr Comp
Total Zinc	12.9	23.3	105 ug/l	190 ug/l	2x Monthly	24-hr Comp
Total Residual Chlorine				0.036 mg/l	3x Weekly	Grab
Phenol	0.45	1.1	4 ug/l	9 ug/l	Weekly	24-hr Comp
Ammonia as Nitrogen (mg/l)			Monitor		Weekly	24-hr Comp
Chlorides (mg/l)			Monitor		3x Weekly	24-hr Comp
Temperature (°F)			Monitor		3x Weekly	Reading
Outfall Observation					Daily	Visual
				<u>Minimum</u>		
Dissolved Oxygen				4.0 mg/l	3x Weekly	Grab

a. The receiving stream shall contain no unnatural turbidity, color, oil film, floating solids, foams, settleable solids, or deposits as a result of this discharge.

b. Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to the discharge to Monguagon Creek.

c. The pH shall not be less than 6.5 nor greater than 9.0, except as provided below. The pH shall be monitored as follows: continuous; report minimum and maximum; reading: daily. In addition, the permittee shall report each excursion from the allowable range of 6.5 to 9.0 on an individual occurrence and monthly cumulative basis. The total time during which the pH values are outside the pH values of 6.5 to 9.0 shall be no more than 7 hours and 26 minutes in any calendar month, and no single excursion shall exceed 60 minutes. The discharge shall be within the range of 6.0 to 10.5, 100% of the time.

## Part I

## Section A.

d. Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids or deposits) shall be reported immediately to the Detroit District Office of the Surface Water Quality Division followed with a written report within 5 days detailing the findings of the investigation and the steps taken to correct the condition.

e. In the event the permittee shall require the discharge of water treatment additives, the permittee shall notify the Chief of the Surface Water Quality Division. The permittee shall obtain written approval from the Chief of the Surface Water Quality Division to discharge such additives at a specified level. The permit may be modified in accordance with the requirements of Part II.B.4 if a constituent of the additive or additives requires limiting.

f. The term noncontact cooling water shall mean water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product, or finished product.

g. The above limitations for total suspended solids may be modified to a Net value upon demonstration to the Chief of the Surface Water Quality Division that gross values are unattainable. The permittee shall make a net demonstration according to 40 CFR, Part 122.

## PART I

## Section A.

3. Special Condition - Reopener Clause

This permit may be modified or, alternatively, revoked and reissued to comply with any applicable standard(s) or limitation(s) promulgated under Section 301(b)(2)(c)(d), 304(b)(2) and 307(a)(2) of the Act, if the effluent standard(s) or limitation(s) so promulgated:

- a. is(are) either different in condition or more stringent than any effluent limitation in the permit; or
- b. control(s) any pollutant not limited in the permit.

4. Special Condition - Notification Requirement

The discharger shall notify the Chief of the Surface Water Quality Division, in writing, within 10 days of knowing, or having reason to believe, that a change in facility operation, sewerage system users, maintenance, or construction has resulted or will result in the discharge of:

- a. Detectable levels\* of chemicals on the current Michigan Critical Materials Register or priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, which were not acknowledged in the application\*\* or listed in the application at less than detectable levels.
- b. Detectable levels\* of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information.
- c. Any chemical at levels greater than five times the average level reported in the application\*\*.

Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the schedule of compliance.

\*The detectable level shall be defined as the Method Detection Limit (MDL) as given in Appendix B to Part 136, Federal Register, Vol. 49, No. 209, October 26, 1984, pp. 43430-31.

\*\*The application dated March 31, 1987, as amended, and referenced information submitted with prior applications.



## PART I

## Section A.

5. Special Condition - BAT Monitoring

As a condition of this permit, the permittee shall monitor the discharge from outfall 001 for the constituents listed below using approved test procedures established by the federal regulations "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act", 40 CFR Part 136. This monitoring is designed to determine whether these constituents are discharged and, therefore require effluent limitations under the federal regulations entitled "Organic Chemicals and Plastics and Synthetic Fibers Category Effluent Limitations Guidelines", 40 CFR Parts 414 and 416. Grab samples shall be taken for the constituents twice a year, for the life of this permit. The results of the analysis of such monitoring shall be submitted to the Chief of the Surface Water Quality Division in accordance with Part I.C.2, Schedule of Compliance. If, upon review of the analysis, it is determined that any of the materials or constituents require limiting in accordance with applicable water quality or technology standards, the permit may then be modified after public notice and Commission approval of the recommended permit modification in accordance with Part II.B.4. The reissuance of this permit does not authorize the discharge of any of the constituents listed below:

Volatile Compounds

acrylonitrile	benzene	carbon tetrachloride
chlorobenzene	chloroethane	chloroform
1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethylene
1,2-dichloropropane	1,3-dichloropropylene	ethylbenzene
methyl chloride	methylene chloride	tetrachloroethylene
toluene	1,2-trans-dichloroethylene	1,1,1-trichloroethane
trichloroethylene	1,1,2-trichloroethane	vinyl chloride

Acid Compounds

2,4-dimethylphenol	4,6-dinitro-o-cresol	2,4-dinitrophenol
2-nitrophenol	4-nitrophenol	

Base/Neutral Compounds

acenaphthene	acenaphthylene	anthracene
benzo(a)anthracene	benzo(a)pyrene	3,4-benzofluoranthene
benzo(k)fluoranthene	bis(2-chloroisopropyl)ether	bis(2-ethylhexyl)phthalate
chrysene	1,2-dichlorobenzene	1,3-dichlorobenzene
1,4-dichlorobenzene	diethyl phthalate	dimethyl phthalate
di-n-butyl phthalate	fluoranthene	fluorene
hexachlorobenzene	hexachlorobutadiene	hexachloroethane
naphthalene	nitrobenzene	phenanthrene
pyrene	1,2,4-trichlorobenzene	

Other Toxic Pollutants

Total Chromium	Total Copper	Total Cyanide
Total Lead	Total Nickel	

## PART I

## Section A.

6. Special Condition - Intake Monitoring

Beginning on the date of issuance of this permit and lasting until the date of expiration of this permit, the permittee shall monitor the intake as specified below:

<u>Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
BOD5	3x Weekly	24-hr Composite
Total Suspended Solids	3x Weekly	24-hr Composite
Chlorides	3x Weekly	24-hr Composite

a. Samples to be taken in compliance with the monitoring requirements above shall be taken of the intake after initial screening or pre-process treatment.

b. Results of monitoring and analysis shall be submitted to the Detroit District Supervisor of the Surface Water Quality Division.

7. Special Condition - Short Term Intake-Discharge Study

As a condition of this permit, the permittee shall monitor both the intake and the discharge from outfall 001 for the constituents, at the frequency, and for at least the duration specified below. This monitoring is designed to determine whether these constituents are discharged in significant quantities. The results of the analysis of such monitoring shall be submitted to the Chief of the Surface Water Quality Division in accordance with Part I.C.3., Schedule of Compliance. If, upon review of the analysis, it is determined that any of the materials or constituents require limiting to protect the receiving waters in accordance with applicable water quality standards, the permit may then be modified after public notice and Commission approval of the recommended permit modification in accordance with Part II.B.4.

<u>CONSTITUENT</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE FREQUENCY</u>	<u>DETECTION LEVEL</u>	<u>SAMPLE DURATION</u>
Total Cadmium	24-hr Comp	Weekly	0.2 ug/l	Two Weeks
Total Chromium	24-hr Comp	Weekly	10 ug/l	Two Weeks
Hexavalent Chromium	24-hr Comp	Weekly	5 ug/l	Two Weeks
Total Copper	24-hr Comp	Weekly	0.2 ug/l	Two Weeks
Amenable Cyanide	24-hr Comp	Weekly	5 ug/l	Two Weeks
Total Lead	24-hr Comp	Weekly	1 ug/l	Two Weeks
Total Mercury	24-hr Comp	Weekly	0.5 ug/l	Two Weeks
Total Nickel	24-hr Comp	Weekly	50 ug/l	Two Weeks
Total Zinc	24-hr Comp	Weekly	50 ug/l	Two Weeks
Total Silver	24-hr Comp	Weekly	0.2 ug/l	Two Weeks
PCB's	24-hr Comp	Weekly		Two Weeks
Ammonia as Nitrogen	24-hr Comp	Weekly		Two Weeks
pH	24-hr Comp	Weekly		Two Weeks

## PART I

## Section A.

8. Special Condition - Groundwater Discharge Not Authorized

The reissuance of this permit does not authorize any discharges to the groundwaters. Such discharges must be authorized by a groundwater discharge permit issued pursuant to Act 245, Public Acts of 1929, as amended.

9. Special Condition - Short Term Waste Characterization Study

As a condition of this permit, the permittee shall monitor wastewaters from processes 21, 45, and 47 prior to mixing with noncontact cooling water (which is discharged at the end of the final pond) and at outfall 001, at a minimum, for the constituents associated with each process, at the frequency, and for the duration specified below. This monitoring is designed to determine whether these constituents are discharged in significant quantities. The results of the analysis of such monitoring shall be submitted to the Chief of the Surface Water Quality Division in accordance with Part I.C.4., Schedule of Compliance. If, upon review of the analysis, it is determined that any of the materials or constituents require limiting to protect the receiving waters in accordance with applicable water quality standards, the permit may then be modified after public notice and Commission approval of the recommended permit modification in accordance with Part II.B.4.

<u>CONSTITUENT</u>	<u>SAMPLE TYPE</u>	<u>SAMPLE FREQUENCY</u>	<u>SAMPLE DURATION</u>
monoethylamines	Grab	Weekly	*Two Weeks
diethylamines	Grab	Weekly	*Two Weeks
triethylamines	Grab	Weekly	*Two Weeks
mono, di, & tri-N-butylamine	Grab	Weekly	*Two Weeks
N, di, and tripropylamine	Grab	Weekly	*Two Weeks
ammonia	Grab	Weekly	*Two Weeks
diethylhydroxylamine	Grab	Weekly	*Two Weeks
methyl amine	Grab	Weekly	*Two Weeks
diethylaminoethanol	Grab	Weekly	*Two Weeks
methyldiethanolamine	Grab	Weekly	*Two Weeks
methylethanolamine	Grab	Weekly	*Two Weeks
pH	Grab	Weekly	*Two Weeks
flow	Reading or Estimate	Weekly	*two Weeks

\* During operation of processes identified above.

## PART I

## B. MONITORING AND REPORTING

## 1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

## 2. Reporting:

DMR Submittal Requirements - The permittee shall submit Discharge Monitoring Report (DMR) forms to the Michigan Department of Natural Resources, Surface Water Quality Division, Data Entry Unit, P.O. Box 30028, Lansing, Michigan, 48909, for each calendar month of the authorized discharge period(s). The DMRs shall be postmarked no later than the 10th day of the month following each month of the authorized discharge period.

## 3. Definitions

a. The monthly average discharge is defined as the total discharge by weight, or concentration if specified, during the reporting month divided by the number of days in the reporting month that the discharge from the production or commercial facility occurred. When less than daily sampling occurs, the monthly average discharge shall be determined by the summation of the measured daily discharges by weight, or concentration if specified, divided by the number of days during the reporting month when the samples were collected, analyzed and reported.

b. The daily maximum discharge means the total discharge by weight, or concentration if specified, during any calendar day.

c. The Regional Administrator is defined as the Region V Administrator, U.S. EPA, located at 230 South Dearborn, 13th Floor, Chicago, Illinois, 60604.

d. The Michigan Water Resources Commission is located in the STEVENS T. MASON BUILDING. The mailing address is P.O. Box 30028, Lansing, Michigan, 48909.

## PART I

## Section B.

## 4. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(h) of the Act, under which such procedures may be required.

## 5. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses.

## 6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monthly Operating Report. Such increased frequency shall also be indicated.

## 7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Michigan Water Resources Commission.

## PART I

## C. SCHEDULE OF COMPLIANCE

1. The permittee shall continue to operate the installed facilities to achieve the effluent limitations specified for outfall 001.
2. On or before April 1st and October 1st of each year, during the effectiveness of this permit, the permittee shall submit the analytical results required in the BAT Monitoring Section, Part I.A.4. of this permit. The analytical results shall be submitted to the Chief of the Surface Water Quality Division.
3. The permittee shall achieve compliance with the Short Term Intake-Discharge Study requirements specified in Part I.A.7., in accordance with the following schedule. All submittals shall be to the Chief of the Surface Water Quality Division.
  - a. On or before October 31, 1988, the permittee shall submit and receive approval of a monitoring, sampling, and analysis plan.
  - b. On or before February 1, 1989, the permittee shall submit the analytical results of such monitoring.
4. The permittee shall achieve compliance with the Short Term Waste Characterization Study requirements specified in Part I.A.9., in accordance with the following schedule. All submittals shall be to the Chief of the Surface Water Quality Division.
  - a. On or before October 31, 1988, the permittee shall submit and receive approval of a monitoring, sampling, and analysis plan.
  - b. On or before March 31, 1989, the permittee shall submit the analytical results of such monitoring.
5. If the discharges authorized by this permit are expected to continue beyond the expiration date of this permit, the permittee is required to submit an application for reissuance to the Chief of the Surface Water Quality Division on or before April 1, 1992.
6. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit to the Chief of the Surface Water Quality Division either a report of progress or, in the case of specific actions being required by identified dates, a written statement of compliance or noncompliance. In the latter case, the statement shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement. Failure to submit the written statement is just cause to pursue enforcement action pursuant to the Commission Act and the Part 21 Rules.

## PART II

## A. MANAGEMENT REQUIREMENTS

## 1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of Public Acts 245, of 1929, as amended, and/or PL 92-500, as amended, and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

## 2. Change of Conditions

Any anticipated facility expansion, production increases, or process modification which will result in new, different, or increased discharges of pollutants must be reported by submission of a new application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutant not previously limited.

## 3. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of concentrated solutions, acids, alkalies, salts, oils, or other polluting materials in accordance with the requirements of the Michigan Water Resources Commission Rules, Part 5. This requirement is included pursuant to Section 5 of the Michigan Water Resources Commission Act 245, P.A. of 1929, as amended, and the Part 5 Rules of the General Rules of the Commission.

## 4. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified by the Michigan Water Resources Commission, as required by Section 6a of the Michigan Act.

## 5. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Chief of the Surface Water Quality Division with the following information, in writing, within five (5) days of becoming aware of such condition:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

## PART II

## Section A.

## 6. Spill Notification

The permittee shall immediately report any spill or loss of any product, by-product, intermediate product, oils, solvents, waste material, or any other polluting substance which occurs to the surface waters or groundwaters of the state by calling the Department of Natural Resources 24-hour Emergency Response telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-8166); and the permittee shall within ten (10) days of the spill or loss, provide the state with a full written explanation as to the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken, and schedule of implementation. This requirement is included pursuant to Section 5 of the Michigan Water Resources Commission Act 245, P.A. of 1929, as amended.

## 7. Facility Operation

The permittee shall at all times properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

## 8. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface or groundwaters of the state resulting from noncompliance with any effluent limitation specified in this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

## 9. By-Passing

Any diversion from or by-pass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life, personal injury, or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Michigan Water Resources Commission and the Regional Administrator, in writing, of such diversion or by-pass.

## 10. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. Provide an alternative power source sufficient to operate facilities utilized by permittee to maintain compliance with the effluent limitations and conditions of this permit which provision shall be indicated in this permit by inclusion of a specific compliance date in each appropriate "Schedule of Compliance for Effluent Limitations".
- b. Upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.



## PART II

## Section A.

## 11. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters, or the entry of toxic or harmful contaminants thereof onto the groundwaters in concentrations or amounts detrimental to the groundwater resource.

## 12. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset shall notify the Chief of the Surface Water Quality Division by telephone within 24 hours of becoming aware of such conditions and within five (5) days, provide in writing, the following information:

- a. That an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. That the permitted wastewater treatment facility was, at the time, being properly operated;
- c. That the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

In any enforcement proceedings the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

13. Any requirement of this permit which is included under the unique terms of the Water Resources Commission, Act 245, P.A. of 1929, as amended, and rules promulgated thereunder, is not enforceable under the Federal Clean Water Act regulations.

## PART II

## B. RESPONSIBILITIES

## 1. Right of Entry

The permittee shall allow the Executive Secretary of the Michigan Water Resources Commission, the Regional Administrator and/or their authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

## 2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Michigan Water Resources Commission and the Regional Administrator.

## 3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Act and Rule 2128 of the Water Resources Commission Rules, Part 21, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State Water Pollution Control Agency and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act and Sections 7 and 10 of the Michigan Act.

## 4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully, all relevant facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

## PART II

## Section B.

## 5. Toxic Pollutants

Notwithstanding Part II.B.4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

## 6. Civil and Criminal Liability

Except as provided in permit conditions on "By-Passing" (Part II.A.9) and "Power Failures" (Part II.A.10), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond his control, such as accidents, equipment breakdowns, or labor disputes.

## 7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Act except as are exempted by federal regulations.

## 8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

## 9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any Federal, State or local laws or regulations, nor does it obviate the necessity of obtaining such permits or approvals from other units of government as may be required by law.

## 10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

## 11. Notice to Public Utilities (Miss Dig)

The issuance of this permit does not exempt the permittee from giving notice to public utilities and complying with each of the requirements of Act 53 of the Public Acts of 1974, being sections 460.701 to 460.718 of the Michigan Compiled Laws, when constructing facilities to meet the terms of this permit.

VI. EQUIPMENT (General)

(Chemistry)

Laboratory \_\_\_\_\_

Unit \_\_\_\_\_

ITEM	# of UNITS	MAKE	MODEL	AGE	CONDITION/PERFORMANCE
pH METER		ORION	135		✓
DISSOLVED OXYGEN METER		151	54A		✓
CONDUCTIVITY METER					
TURBIDIMETER					
BALANCE, PAN					
BALANCE, ANALYTICAL		METTLER	AE163	2	✓
SPECTROPHOTOMETERS		SPEC	88		NOT USED CURRENTLY
WATER BATHS					
COD RACKS					
TKN RACKS					
PHENOL SETUPS					DO NOT DO NOW
DRYING OVENS		FISHKILL	306		
INCUBATOR, 20°		FISHKILL	146		
REFRIGERATOR					
CYANIDE SETUPS					

# VII. EQUIPMENT (Specialized)

Laboratory \_\_\_\_\_

Unit \_\_\_\_\_

ITEM	# of UNITS	MAKE	MODEL	AGE	CONDITION/PERFORMANCE
ATOMIC ABSORPTION					
CARBONACEOUS ANALYZER					
TECHNICON					
ION SELECTIVE METERS		ORION	135		CL <sub>2</sub> P <sup>H</sup>
ADVANCED SPECIALTY EQUIPMENT (GC/MS, NMR, X-Ray Fluorescence, etc.)					

VIII. LABORATORY SERVICES AND SPACE  
(Chemistry)

Laboratory \_\_\_\_\_ Unit \_\_\_\_\_

ITEM	*	SATISFACTORY		COMMENTS (Where applicable, cite system, QC check, adequacy of space)
		YES	NO	
DISTILLED WATER		NA		
DEIONIZED WATER		✓		
VACUUM				
GAS				
COMPRESSED AIR				
ELECTRICAL SERVICES				
HOOD SPACE				
BENCH TOP SPACE				
STORAGE SPACE				
OFFICE SPACE (Total sq. ft & sq.ft./person)				
LAB SPACE (Total sq.ft. & sq.ft./person)				
SAFETY PRECAUTIONS (not OSHA standard)				

\* Available

IX. DATA HANDLING  
(Chemistry)

Laboratory \_\_\_\_\_ Unit \_\_\_\_\_

ITEM	COMMENTS (system used, frequency)
USE OF BENCH CARDS, NCR FORMS Other Sheets	HAVE EXAM
USE OF BOUND NOTEBOOKS (Field and Lab)	W/ LIOBEL
USE OF COMPUTERS Automation Computational Services	YES
PUBLICATION & USE OF DATA Storage / Retrieval	

X. QUALITY CONTROL  
(Chemistry)

Laboratory \_\_\_\_\_  
\_\_\_\_\_

Unit \_\_\_\_\_

ITEM	YES	NO	FREQUENCY	COMMENTS (system used, etc.)
Written QC Procedures (Provide copy if available.)				
Equipment and Instru- ment Calibrations Done Routinely				
Written Record of These Calibrations				
Interlaboratory Audit or Reference Samples Utilized				MONTHLY QC SAMPLES
Participation in Interlaboratory Methods Studies				
Reagent Blanks for Preservation Analyzed				
Intralaboratory Control Samples Utilized				
Intralaboratory Spiked Samples				
Replicate Sample Analysis				
Quality Control Charts Used				
Summary of Interlabora- tory and Intralabora- tory QC data are available to data users				
Sample Log and Sample Number Identification System Used in Lab.				
Documented Chain of Custody Procedure				



Additional Areas to Check During PAI

1. Data Flow (From Whom to Whom)

2. Random Data Check

DATA CHECK OK

3. DMR-QA Results

4. Safety

5. QC Document

### I. LABORATORY STAFFING (chemistry)

Laboratory PENNWALT

Unit \_\_\_\_\_

[illegible]

NPDES MONITORING LABORATORY REPORT

ANALYZED: \_\_\_\_\_ SAMPLED BY: \_\_\_\_\_ TIME SAMPLED: \_\_\_\_\_

INTAKE 000 COMPOSITE, DATE: \_\_\_\_\_

<u>PARAMETER</u>	<u>METHOD</u>	<u>RESULTS</u>	<u>LIMIT</u>
Sus. Solids	SM 160.2	_____ mg/l	--
Chlorides	SMEWW 407A	_____ mg/l	--
BOD 5 Comp. Date _____	SM 405.1	_____ mg/l	--

OUTFALL 001 COMPOSITE, DATE: \_\_\_\_\_

<u>PARAMETER</u>	<u>METHOD</u>	<u>RESULTS</u>	<u>LIMIT</u>
Sus. Solids	SM 160.2	_____ mg/l	37
Chlorides	SMEWW 407A	_____ mg/l	--
NH <sub>3</sub> -N	SM 350.2	_____ mg/l	--
Phenol	SM 420.1	_____ ug/l	9
BOD 5 Comp. Date _____	SM 405.1	_____ mg/l	22
Zn	SM 289.2	_____ ug/l	105

OUTFALL 001 GRAB, DATE: \_\_\_\_\_

<u>PARAMETER</u>	<u>METHOD</u>	<u>RESULTS</u>	<u>LIMIT</u>
Dissolved Oxygen	SM 360.1	_____ mg/l	4
pH	SM 150.1	_____ pH	6.5-9
Temp	Reading	_____ °F	--
Res. Chlorine	Orion IM97-70/1821	_____ mg/l	.036
Outfall Observation	Visual _____		

Comments: \_\_\_\_\_

Lab Supervisor: \_\_\_\_\_ Analyzed By: \_\_\_\_\_

Distribution: D108, B155, M47, P28, S72, P35, Shift Supts.

Orion IM97-70/1821 with Pennwalt Modifications

Storet Methods EPA 600/4-79-020 Rev. 3/83

Standard Methods for the Examination of Water & Waste Water, 15th Edition

# PERFORMANCE EVALUATION REPORT

DATE: 7/11/88

DMR-2A STUDY NUMBER 008

PERMITTEE: MI0002381

PENNWALT CORP. WYANDOTTE PLANT

IX

ANALYTES	V P	REPORT VALUE	TRUE VALUE*	ACCEPTANCE LIMITS	WARNING LIMITS	PERFORMANCE EVALUATION
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## TRACE METALS IN MICROGRAMS PER LITER:

ZINC		466	650	552.- 734.	574.- 712.	NOT ACCEPTABLE
------	--	-----	-----	------------	------------	----------------

## MISCELLANEOUS ANALYTES:

PH-UNITS		7.46	7.50	7.28- 7.66	7.33- 7.61	ACCEPTABLE
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TOTAL SUSPENDED SOLIDS $\frac{1}{2}$ (IN MG/L)		29.8	56.3	44.9- 67.7	47.7- 64.9	NOT ACCEPTABLE
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## DEMANDS IN MILLIGRAMS PER LITER:

5-DAY BOD	5.22?	$\frac{1}{2}$	7.41	16.0	7.54- 24.4	9.63- 22.3 NOT ACCEPTABLE
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## ADDITIONAL MISCELLANEOUS ANALYTES:

TOTAL PHENOLICS (IN MG/L)		0.15	0.134	.0538- .214	.0740- .194	ACCEPTABLE
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TOTAL RESIDUAL CHLORINE (IN MG/L)		4.05	4.14	2.97- 4.88	3.22- 4.63	ACCEPTABLE
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\* BASED UPON THEORETICAL CALCULATIONS, OR A REFERENCE VALUE WHEN NECESSARY.

10/31/89

✓ WHO IS RESPONSIBLE OFFICIAL FRANK DIMAGGIO  
✓ HOW DID OOB COME OUT (NOT ITAGU)

✓ WHO IS PAUL SCHROEDER LIOBEL'S ASSOC LETTER TO SITON ON

✓ INFLUENT FLOW OF INITIAL PHOTOS WERE ITS REACTION  
DISCUSS FLOW (BEING REVIEWED BY DR. 2)

### DIVISION OF LABOR

✓ LIOBEL MORETTE SECTION - ALL OTHERS

LAB QC

STILL WORKING ON IT  
SONAR  
WIRE AT  
EFF. ASD  
RNC WORKING  
ON SMITH  
RAD  
STATE  
KNOW

✓ TOM OVER GAARD'S SECTION - METALS (2H)  
AA. IS OVER THERE

✓ WHY PROBLEMS WITH OOB ANY WAY - ZINE LOW COULD FIND  
T.S.S. (1/2) - } COULD FIND NO PROBLEMS  
DOO (1/2) - }

✓ DATA FLOW

ERIC → TO COMPUTER → STORE REPORT

EDIT LISTING OUTPUT

VARIABLED BY LIOBEL → STATE

REPORT TO TOM RAY, OVERSTATED

TOM OVER GME → COMPUTER → STATE REPORT

EDIT LIST OUTPUT

REP TO TOM RAY

# PENNANT CORP

7/13

CHEMICAL  
WATER

ACCID

✓ ZINC	WPO14 #1 - 201 mg/l	OK	201.6	176-225	168-234
✓ T.S.S.	WPO14 #2 - 52.3 mg/l	OK	47.5 7/7	40.7-55.1	38.2-57.5
✓ BOD5	WPO14 #2 - 19.8 mg/l	OK	20.5 7/7	13.9-25.4	11.9-27.4

PERMIT NUMBER: MI0002381 FACILITY NAME: PENNWALT CORP

PERMIT INFORMATION

APPLICATION RECEIVED: 03/31/87 TYPE OF APPLICATION: RAPP  
APPLICATION COMPLETE:  
PUBLIC NOTICE GIVEN :  
PERMIT ISSUED 09/15/88 PERMIT ISSUED BY : STATE  
PERMIT EXPIRES 10/01/92

ORIGINAL ISSUE DATE : NUMBER OF REISSUES :  
NEW SOURCE CODE: NEW SOURCE DATE:

ENTER A CARRIAGE RETURN TO CONTINUE, OF  
ENTER 'SKIP' TO SKIP THE NEXT SECTION -- MAILING INFORMATION

PERMIT NUMBER: MI0002381 FACILITY NAME: PENNWALT CORP

MAILING INFORMATION

PRIMARY MAILING ADDRESS:

PENNWALT CORPORATION  
4655 BIDDLE AVENUE  
WYANDOTTE  
MI 48912

ALTERNATE MAILING ADDRESS:

TRAILER  
OFF PENN. ASS

TOM RAY - MANG OF ENVIR AFFAIRS  
LAB QC - LOINEL MONETTE (H20)  
RID - TOM OVER GARR  
WWTP OPER - ASK FOR HIM

COGNIZANT OFFICIAL: JOHN ROSEN  
PHONE: (313) 285-9200

ENTER A CARRIAGE RETURN TO CONTINUE, OR  
ENTER 'SKIP' TO SKIP THE NEXT SECTION -- OUTFALL SUMMARY

PERMIT NUMBER: MI0002381 FACILITY NAME: PENNWALT CORP

OUTFALL SUMMARY

OUTFALL	LIMIT TYPE	NO. OF PARAMETERS	NO. OF MEAS. VIOLATIONS	NO. OF NON-RPT VIOLATIONS	NO. OF ENFORCEMENT ACTIONS
001A	FINAL	15	15	0	0
	INTERIM	12	48	0	0